

REMARKS

Claims 1-11 are all the claims pending in the application. Claim 1 is amended. Examiner is thanked for carefully reviewing the present application. The present amendment is in response to the Office Action dated May 27, 2005 regarding claims 1-11. Favorable reconsideration is requested in view of the above amendments and the following remarks.

In particular, claim 1 is amended to particularly point out that the second plate directly contacts the first post and the second post, and shifts along the first post towards the operating plate, and shifts along the second post towards the first plate. Support for this amendment can be found in Fig. 5A and the related description of the specification.

Thus, claims 1-11 are now pending in the application. The amended claim contains no new matter nor raises new issues.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1-5 and 7-11 are rejected under 35 U.S.C. § 103(a), as being unpatentable by Miles (US 6,650,455; hereinafter referred to as Miles '455) in view of Miles (US 6,674,562; hereinafter referred to as Miles '562). Claim 6 is rejected under 35 U.S.C. § 103(a), as being unpatentable by Miles '455 in view of Miles '562 and further in view of Huibers (US 6,172,797). As will be fully explained below, these rejections are respectfully traversed.

As explicitly recited in claim 1 of the claimed invention, the first plate, the second plate and the operating plate are supported by directly contacting the first and second posts 512 and 508 (see Fig. 5A, the related description of the specification). Such as shown in Fig. 5B of the claimed invention, by a voltage added on the operating plate, the second plate can shift along the first post to move towards the operating plate, and shift along the second post to move towards the first plate, so as to change the distance of the cavity, wherein the distance (length) of the cavity can be approximately from 0 to the distance between the operating plate and the first plate.

In the Response to Arguments of the present Office Action, Examiner agrees that the neither Miles'455 or Miles'562 discloses a second plate shifting along a second post, however,

since the claim is states in the alternative, the rejection still holds. Accordingly, Applicants amend claim 1 to overcome the aforementioned issue raised by Examiner.

On the other hand, Examiner also indicates in the Response to Arguments that the vertical portions of the U-shaped plate 506 are posts directly connected to the deformable middle portion of the U-shaped plate 506, wherein the second plate directly contacts and shift along the first post towards the operating plate (wherein the second plate 506 deforms towards the operating plate 504 along the vertical side portions). However, such as shown in Fig. 5B of Miles' 455, when a voltage applied between primary electrode 502 and membrane mirror 506, the original U-shaped plate 506 as shown in Fig. 5A is deformed, wherein the posts (the vertical portions of the plate 506 referred by Examiner) are bent and the second plate (the deformable middle portion of the plate 506 referred by Examiner) are deformed into a U shape with two deformed sides. Thus, those two deformed sides of the second plate do not and cannot shift along the curved portion of the posts, particularly for the connection portions between the deformed sides of the second plate and the curved posts. Therefore, Mile's 455 does not disclose at least one first post recited in the claimed invention, wherein the second plate shifts along the first post.

Further, the Examiner stated in the present Office Action that Miles' 455 does not specifically disclose at least one second post located between the first plate and the second plate. Examiner stated that Miles' 562 has taught the aforementioned second posts of the claimed invention. However, as shown in Fig. 3A of Miles' 562, conducting membrane 302 (second plate) and shield membrane 300 (first plate) are connected to supporting post via tethers 306 (not shown in the description related to Fig. 3A, but should be similar to tethers 102 and supporting posts 104 shown in Fig. 1B), and such as shown in Fig. 3C, the conducting membrane 302 (second plate) can be actuated to come into contact with a membrane 304 (operating plate; states 1 and 2), and the shield membrane 300 (first plate) can be actuated to come into contact with the conducting membrane 302 (states 2), wherein the movements of the shield membrane 300 and conducting membrane 302 are provided by the elastic property of the tethers 306. Apparently, the conducting membrane 302 (second plate) does not directly contact the first post and the second post, and can only be pulled downwards the lower potion of the supporting post (the first

post), so that the conducting membrane 302 (second plate) does not directly contact and shift along the second post, and does not directly contact and shift along both the first and second posts. Therefore, the connecting mechanism of Miles' 562 is different from that of the claimed invention, thereby causing different movements of the second plate, thus achieve different configurations of the first, second and operating plates from those of the claimed invention.

Accordingly, Miles' 562 does not teach or suggest the connection structure between the first/second posts and the first/second/operating plates as recited in claim 1 of the claimed invention, and particularly, Miles' 562 does not teach or suggest the mechanism of allowing the conducting membrane 302 (second plate) to shift along the second post. Therefore, claim 1 is non-obvious over Miles '455 in view of Miles '562. Likewise, by virtue of their dependence on patentable claim 1 respectively, claims 2-11 are also nonobvious and patentable over the above-identified prior arts. Accordingly, Applicants respectfully request that the section 103(a) rejections be withdrawn.

With regard to claim 7, Miles '455 merely indicates that the first plate and the second plate are metal mirrors, but fails to teach the first plate and the second plate can be narrowband mirror, broadband mirror or non-metal mirror. Therefore, claim 7 is nonobvious and patentable over Miles '455 in view of Miles '562.

With regard to claim 11, Miles '455 merely indicates that the second plate is a thin metal, but fails to teach the semi-transparent material in the second plate can be ITO or IZO. Therefore, claim 11 is nonobvious and patentable over Miles '455 in view of Miles '562.

With regard to claim 6, Huibers merely indicates that a layer of ITO is added to the substrate, but fails to teach the substrate is made from IZO. Therefore, claim 6 is nonobvious and patentable over Miles '455 in view of Miles '562 and further in view of Huibers.

Therefore, Applicants respectfully request that the rejection be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner

Amendment Under 37 C.F.R. § 1.111
U.S. Application No. 10/670,734

reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If there are any remaining issues to be resolved, Applicants request that the Examiner contact the undersigned attorney for a telephone interview.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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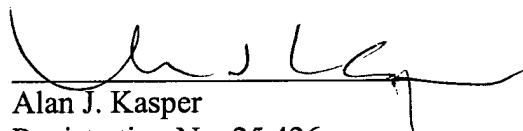
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